Technology: Microelectronics

NEC and TechFaith set up new China company

TechFaith Holding Ltd, a Chinese design house and NEC Corp have established STEP Technologies (Beijing) a new joint venture company. To be held 70% by TechFaith and 30% by NEC, the new company will design and develop NEC's 25G and 3G mobile 'terminals' for global market, as well as unique and market-conscious mobile terminals for the Chinese market.

By leveraging TechFaith's experience and know-how in China's mobile market and NEC's 3G and high-end mobile internet design and development capabilities, NEC aims to decrease the development time, enrich product line and offer products speedily according to the market requirements.

AWR teams up with Cyntec on microwave design library

Applied Wave Research Inc, provider of high-frequency electronic design automation tools, and CyntecCo Ltd, a developer of TFT and products, are to work together to develop a thin film process design library for AWR's Microwave Office EDA software suite.

AWR has been working closely on several projects with Taiwan's Industrial Technology Research Institute (a non-profit R&D organization founded by the Ministry of Economic Affairs to address the technological needs of Taiwan's industrial development.

ITRI has been appointed and is funded by the government's Industrial Development Bureau to develop thin film technology in Taiwan. This involves foundries, EDA vendors, test equipment vendors, and potential customers.

AWR will provide training and mentorship for Cyntec to develop a thin film process library for Microwave Office suite.

Thin film circuits printed on low loss ceramic substrates is a mature technology that has been used for several decades in millimeter wave and radio-frequency (RF) applications.

Similar to semiconductor manufacturing, not only via holes and bonding pads, but resistor, inductor, capacitor, and isolation layers can be easily formed during the deposition and etching process.

Recent advances in multi-layer substrate design have enabled the fabrication of much more complex circuits which are needed for today's sophisticated communications systems.

Thin film technology is a low-cost solution that produces stable, high-performance, miniature products capable of meeting current and future demands.

"The thin film process is not new," said Ron Patston, AWR VP of Asia Pacific operations.

"While it offers an efficient, high-performance and cost-effective alternative, designers are not as familiar with it as they are with the more traditional IC design process.

"EDA tools have the potential to be an important part of the thin film design process, but they must become more closely integrated within the multi-layer substrate design methodology."

Aeleron has SiGe front end, but aims for all CMOS

Ultrawideband chip developer Alereon Inc has raised $31m in Series A funding from investors including Austin Ventures, Pharos Capital, Kinetic Ventures and Centennial Ventures. The company is to use the money to complete development and ramp up production of a two-chip, multi-band OFDM in CMOS, with a SiGe front-end, although the ultimate goal is an all CMOS device.

A spin-off from Time Domain Corp, Alereon (Austin, Texas) emerged in August with the goal of developing silicon compliant with whatever standard emerges from the IEEE 802.15.3a task group's efforts.